Title (en)

Cyclohexane derivatives and their use as components for liquid crystals.

Title (de)

Cyclohexanderivate und ihre Verwendung als Komponenten Flüssigkristalliner-Dielektrika.

Title (fr)

Dérivés du cyclohexane et leur application comme components de cristaux liquides.

Publication

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Application

EP 83107798 A 19830808

Priority

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- DE 3320024 A 19830603

Abstract (en)

[origin: US4510069A] Cyclohexane derivatives of formula I R1-(A1)m-Z1-A-Z2-(A2)n-R2 I wherein R1 and R2 are each H, an alkyl group which has 1-10 C atoms and in which one or two CH2 groups can also be replaced by O atoms, F, CL, Br, CN or -O-COR, A1 and A2 are each 1,4-phenylene, 1,4-cyclohexylene, 1,3-dioxane-2,5-diyl, piperidine-1,4-diyl, 1,4-bicyclo(2,2,2)-octylene or pyrimidine-2,5-diyl groups which are unsubstituted or substituted by 1-4 F atoms, A is a 1,4-cyclohexylene group which is substituted in the 1-position and/or 4-position by alkyl, alkoxy, fluorinated alkyl or fluorinated alkoxy, each of which has 1-5 C atoms, F, Cl, Br and/or CN and which can also carry 1 or 2 further F, Cl or Br atoms and/or CN groups, Z1 and Z2 are each -CO-O-, -O-CO-, -CH2CH2-, -OCH2-, -CH2O- or a single bond, R is an alkyl group which has 1-5 C atoms, m is 1 or 2 and n is 0 or 1, it being possible, where m=2, for the two groups A1 to be identical or different from one another; and the acid addition salts of those compounds which are basic, are suitable for use as components of liquid-crystal dielectrics.

Abstract (de)

Cyclohexanderivate der Formel I R^1-(A^1)m-Z^1-A-Z^2-(A^2)n-R^1 I worin R^1 und R^2 jeweils H, eine Alkylgruppe mit 1 - 10 C-Atomen, worin auch eine oder zwei CH2-Gruppen durch O-Atome ersetzt sein können, F, Cl, Br, CN oder -O-COR, A^1 und A^2 jeweils unsubstituierte oder durch 1 - 4 F-Atome substituierte 1,4-Phenylen-, 1,4-Cyclohexylen-, 1,3-Dioxan-2,5-diyl-, Piperidin-1,4-diyl-, 1,4-Bicyclo(2,2,2)-octylen-, oder Pyrimidin-2,5-diylgruppen, A eine in 1- und/oder 4-Stellung durch Alkyl, Alkoxy, fluoriertes Alkyl oder fluoriertes Alkoxy mit jeweils 1 - 5 C-Atomen, F, Cl, Br und/oder CN substituierte 1,4-Cyclohexylengruppe, die 1 oder 2 weitere F-, Cl- oder Br-Atome und/oder CN-Gruppen tragen kann, Z^1 und Z^2 jeweils -CO-O-, -O-CO-, -CH2CH2-, -OCH2-, -CH2O- oder eine Einfachbindung, R eine Alkylgruppe mit 1 - 5 C-Atomen, m 1 oder 2 und n 0 oder 1 bedeuten, wobei für m = 2 die beiden Gruppen A^1 gleich oder voneinander verschieden sein können, sowie die Säureadditionssalze der basischen unter diesen Verbindungen eignen sich zur Verwendung als Komponenten flüssigkristalliner Dielektrika.

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Cited by

EP0184012A1; EP0172360A3; US5968410A; EP0149238A3; DE4430668B4; EP0198714A1; EP0154849A3; EP0132553A1; US4913532A; CN107779203A; WO8705618A1; WO8701701A3; WO8603769A1; WO9103468A1; WO8701717A3

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